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[Continued on next page]

(54) Title: PATENT-RELATED TOOLS AND METHODOLOGY FOR USE IN RESEARCH AND DEVELOPMENT PROJECTS

| R&D TOOLS MAP |                              |   | R&D STAGES  |            |             |             | PORTFOLIO |
|---------------|------------------------------|---|-------------|------------|-------------|-------------|-----------|
|               |                              |   | PRELIMINARY | ASSESSMENT | FEASIBILITY | DEVELOPMENT |           |
| 202           | TOPOGRAPHIC MAP              | OVERALL VIEW OF RELATED ART, USES, COMPETITORS                          |             | 10         | 21          | 33          | 51        |
| 204           | TOP COMPANY TABLE            | RANKED LIST OF COMPANIES  | 2           |            |             |             |           |
| 206           | TOP INVENTOR TABLE           | RANKED LIST OF INVENTORS  | 3           |            |             |             |           |
| 208           | INVENTORS BY COMPANY TABLE   | RANKED LIST OF INVENTORS IN EACH COMPANY                                |             | 11         | 22          |             |           |
| 210           | FEATURES GROUPING            | OVERALL VIEW OF FEATURE SET TO OFFER                                    |             | 12         | 23          | 34          |           |
| 212           | TECHNOLOGY CLASSIFICATION    | WHICH TECHNICAL FIELDS PRODUCE SIMILAR FEATURE SETS                     | 4           | 13         | 24          | 35          | 44        |
| 214           | SIC CLASSIFICATION           | WHICH MARKET SEGMENTS CAN USE THE PRODUCTS/SERVICES                     |             | 14         | 25          | 36          |           |
| 216           | PATENT COUNT/YEAR            | HOW FAST IS PRODUCT/USE TECHNOLOGY CHANGING                             | 5           |            |             |             |           |
| 218           | PATENT COUNT/YEAR            | HOW FAST IS PROJECT TECHNOLOGY CHANGING                                 |             | 15         | 26          | 37          | 45        |
| 220           | APPLICATION COUNT/YEAR       | WHICH OTHER COMPANIES ARE ACTIVE IN PROJECT AREA                        |             | 16         | 27          | 38          | 45        |
| 222           | TECHNOLOGY BY COMPANY MAP    | TECHNICAL ASSESSMENT OF SERIOUS COMPETITORS AND PARTNERS                | 6           | 17         | 28          | 39          | 47        |
| 224           | PATENT CITATION TREE         | VIEW OF WHICH COMPANIES CAN BLOCK AND/OR CIRCUMVENT OWNER'S PATENTS     | 7           | 18         | 29          | 40          |           |
| 226           | NESTED PATENT CITATION TREE  | PREDICTION OF RELATED TECHNOLOGY/MARKETS UNDER EXPLORATION              | 8           | 19         | 30          | 41          | 48        |
| 228           | PRODUCT/PATENT/REVENUE TABLE | WHICH PRODUCTS, AND THEIR REVENUE STREAM SIZE, ARE PROTECTED BY PATENTS |             |            |             |             | 52        |
| 230           | PATENT, MONTHS TO ISSUE      | HOW LONG IS TYPICAL COMPANY & PATENT OFFICE CYCLE TIME PER FIELD        |             |            | 31          | 42          | 49        |
| 232           | DOCUMENT/ANNOTATION          | IMMEDIATE, LINKED, SEARCHABLE DOCUMENTATION OF FACTS AND IDEAS          | 9           | 20         | 32          | 43          | 51        |

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(57) Abstract: The present invention is related to patent-related tools, and methodologies involving those tools, for assisting in all stages of research and development (R & D) projects. IPAM server may be used in conjunction with the tools and methodology to aid in R & D projects. The IPAM server can also be used as a support tool for independent inventors. These tools or methods include, but are not limited to, a topographic map, a top company table, a top inventor table, an inventors by company table, a features grouping, a technology classification, a Standard Industrial Codes (SIC) classification, a patent count per year chart, a patent count per year chart, an application count per year chart, a technology by company map, a patent citation tree, a nested patent citation tree, a product/patent/revenue table, a patent/months to issue chart, and a document/annotation chart.



**Previous Corrections:**

see PCT Gazette No. 16/2001 of 19 April 2001, Section II  
see PCT Gazette No. 06/2001 of 8 February 2001, Section  
II

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 00/09382

**A. CLASSIFICATION OF SUBJECT MATTER**  
 IPC 7 G06F17/60 G06F17/30

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
 IPC 7 G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

| Category ° | Citation of document, with indication, where appropriate, of the relevant passages   | Relevant to claim No. |
|------------|--|-----------------------|
| X          | WO 98 55945 A (SMARTPATENTS INC)<br>10 December 1998 (1998-12-10)<br>the whole document<br>---   | 1                     |
| X          | US 5 721 910 A (COHEN ROGER W ET AL)<br>24 February 1998 (1998-02-24)<br>the whole document<br>---   | 1                     |
| X          | NARIN F ET AL: "TECHNOLOGICAL PERFORMANCE ASSESSMENTS BASED ON PATENTS AND PATENT CITATIONS"<br>IEEE TRANSACTIONS ON ENGINEERING MANAGEMENT, US, IEEE INC. NEW YORK,<br>vol. EM31, no. 4,<br>1 November 1984 (1984-11-01), pages<br>172-183, XP000572078<br>ISSN: 0018-9391<br>the whole document<br>--- | 1                     |
|            | -/-  |                       |

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

° Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*&\* document member of the same patent family

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|--|--|
| Date of the actual completion of the international search  | Date of mailing of the international search report |
| 30 November 2000   | 06/12/2000   |
| Name and mailing address of the ISA<br><br>European Patent Office, P.B. 5818 Patentlaan 2<br>NL - 2280 HV Rijswijk<br>Tel. (+31-70) 340-2040, Tx. 31 651 epo nl.<br>Fax: (+31-70) 340-3016 | Authorized officer<br><br>Abbing, R                |

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**C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT**

| Category ° | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No. |
|------------|---|-----------------------|
| P,X        | WO 99 62005 A (MIELENHAUSEN THOMAS)<br>2 December 1999 (1999-12-02)<br>the whole document<br>---  | 1                     |
| A          | PATENT ABSTRACTS OF JAPAN<br>vol. 018, no. 614 (P-1830),<br>22 November 1994 (1994-11-22)<br>& JP 06 231141 A (HITACHI SOFTWARE ENG CO LTD), 19 August 1994 (1994-08-19)<br>abstract<br>figure 3<br>---   | 1                     |
| A          | US 5 826 252 A (ISAACS JAMES RUSSELL ET AL) 20 October 1998 (1998-10-20)<br>the whole document<br>---   | 1                     |
| A          | STEFANOV V: "Some Possibilities of a @?Patents@? Database in Determining a Firm's Policy"<br>WORLD PATENT INFORMATION, GB, ELSEVIER SCIENCES PUBLISHING, BARKING,<br>vol. 17, no. 3,<br>1 September 1995 (1995-09-01), pages 201-204, XP004037786<br>ISSN: 0172-2190<br>the whole document<br>--- | 1                     |
| A          | PATENT ABSTRACTS OF JAPAN<br>vol. 017, no. 519 (P-1615),<br>17 September 1993 (1993-09-17)<br>& JP 05 135109 A (TECHNO RES KK),<br>1 June 1993 (1993-06-01)<br>abstract<br>---  | 1                     |
| A          | PATENT ABSTRACTS OF JAPAN<br>vol. 1996, no. 12,<br>26 December 1996 (1996-12-26)<br>& JP 08 221435 A (HITACHI LTD),<br>30 August 1996 (1996-08-30)<br>abstract<br>figures 5,6<br>-----  | 1                     |

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 00/09382

| Patent document cited in search report | Publication date | Patent family member(s)                      |   |  | Publication date   |
|--|------------------|--|---|--|--|
| WO 9855945                             | A<br>10-12-1998  | US<br>AU<br>EP                               | 5991751 A<br>7953198 A<br>0986789 A   |  | 23-11-1999<br>21-12-1998<br>22-03-2000   |
| US 5721910                             | A<br>24-02-1998  | AU<br>AU<br>BR<br>CA<br>EP<br>JP<br>NO<br>WO | 715248 B<br>3377497 A<br>9710844 A<br>2255880 A<br>0979465 A<br>2000511668 T<br>985649 A<br>9746958 A |  | 20-01-2000<br>05-01-1998<br>17-08-1999<br>11-12-1997<br>16-02-2000<br>05-09-2000<br>27-01-1999<br>11-12-1997 |
| WO 9962005                             | A<br>02-12-1999  | AU   | 4202499 A   |  | 13-12-1999   |
| JP 06231141                            | A<br>19-08-1994  |  | NONE  |  |  |
| US 5826252                             | A<br>20-10-1998  |  | NONE  |  |  |
| JP 05135109                            | A<br>01-06-1993  |  | NONE  |  |  |
| JP 08221435                            | A<br>30-08-1996  |  | NONE  |  |  |